

**ABSTRACT OF THE DISCLOSURE**

A tight-buffered optical fiber includes an optical fiber, at least a first buffer layer of a polymer material enclosing the optical fiber, and a plurality of strength members embedded in the first buffer layer and longitudinally disposed around the optical fiber. A second buffer layer of polymer material may also be formed to enclose the first buffer layer. The first and second buffer layer may be made of acrylate and may be either radiation or thermally curable. The second buffer layer may also have a plurality of strength members embedded in it and longitudinally disposed around the optical fiber.